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**Machine Gun
Platoon and
Section Commanders'**

guide to

**BATTLE PROCEDURE
VERBAL ORDERS**

and general notes on

**FIRE CONTROL
SAFETY (INCLUDING FIXED
LINES)
INDIRECT FIRE**

**M.M.G. Division
Support Weapons Wing
School of Infantry
Netheravon
October, 1959**

BATTLE PROCEDURE

1. The sequence of events to enable the MMG pl to come into action in the quickest possible time. Battle procedure must be flexible and fit each tac sit. The AIM is to get the guns into action quickly.
2. The normal sequence of events is:
 - a. MMG pl comd and/or Sp gp comd are part of bn 'R' gp.
 - b. Pl comd sends WARNING ORDER to pl sgt.

Warning Order

Pl task.

Pl RV.

Move of pl.

H Hr (if known).

Any adm instrs.

- c. Pl moves fwd to pl RV under pl sgt.
- d. Pl comd attends bn 'O' gp.
- e. Pl comd makes APPRECIATION and TIME PLAN:

Time Plan

Time aval to H Hr (example only) = 1 hr 30 mins

Appreciation	= 5 mins
Prep orders	= 10 mins
Issue orders	= 15 mins
Sec comds require	= 30 mins

Time aval for recce	= 30 mins
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Total	1 hr 30 mins
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- f. Pl comds recce of sec areas, sec RVs, pl HQ, veh posn.
- g. Pl comd prep orders having sent for pl sgt and sec comds for 'O' gp.
- h. Pl comd issues orders to pl sgt and sec comds.
- j. Pl sgt moves back to pl RV.
- k. Secs move to sec areas.
- l. Sec comds recce of gun posns, sec con post and routes in and out of sec area.
- m. Pl comd moves to pl HQ.

- n. Vehs report back to veh posn (s).
 - o. Secs comds report in action to pl comd. Pl comd reports in action to bn HQ.
3. When giving out orders to his pl sgt and sec comds the pl comd should select a posn from where he can see as much of the ground as possible. This may mean that it will be nec to move the pl RV to a posn near the 'O' gp or that sec comds will move fwd on foot to attend the 'O' gp. The Pl RV should therefore be selected as far fwd as possible, bearing in mind concealment and cam, in order to obviate unnecessary mov.

PLATOON COMMANDER'S VERBAL ORDERS

GROUND. Describe from LEFT to RIGHT (clockwise).

1. SITUATION

- a. **En Forces** (only what your secs much know).
- b. **Friendly Forces**
 - (1) Locs or tasks of coys and ptls.
 - (2) FUP, SL, rate of adv.
 - (3) Arty, mor tasks, etc., which affect secs.
- c. **Atts and dets**
 - (1) Additional tps under your comd.
 - (2) Secs under comd coys and NOT affected by orders.

2. MISSION

The task which your pl WILL carry out.

3. EXECUTION (your plan to carry out your msn).

a. Gen outline

A brief statement of how you are going to carry out your msn before going into detail.

b. Detailed tasks (deal with each sec in turn).

(1) 1 sec

- (a) Area
- (b) RV
- (c) Arc
- (d) Task
- (e) Tgts timings and ammo for each tgt.

- (2) 2 sec }
 (3) 3 sec } As for 1 sec.

c. **Co-ord Instrs** (orders which are common to more than one sec) such as:—

- (1) Tgts
 (2) Timings
 (3) Mov
 (4) H Hr

4 **ADM AND LOG** (only such details as applies to pl)

- a. Veh posn
 b. Rats, POL
 c. Cas evac, RAP
 d. Ammo sup
 e. Clothing, bedding
 f. Spares, stores, etc.

5. **COMD AND SIG**

- a. Pl HQ
 b. Coy HQs
 c. Bn HQ
 d. Code words/Nicknames
 e. Lt Sigs
 f. Wrls details, etc.

QUESTIONS

- a. From sec comds when they have studied their orders.
 b. To sec comds to confirm that they have understood their orders.

Synchronize watches.

The above outline orders apply to all phases of war, attack, def and withdrawal. Any extra detail will be incl in the EXECUTION para.

FIRE CONTROL

1. COMBINED SIGHT RULE

Range	Map	R/F	Est
0—1000	1	1	1
1050—1500	1	1	3
1550—2000	3	3	5
2050—2500	5	5	—
2550—2800	5	7	—

2. POINT TARGETS

- a. Not more than 30 mins wide and 50 yds deep.
- b. Method of fire: R and L 2 taps.
- c. When strike seen on tgt, R and L 1 tap will be ordered.

3. TRAVERSING TARGETS

- a. Not more than 100 yds wide and 50 yds deep.
- b. If tgt is more than 100 yds wide, it will be split.
- c. Method of fire: Traversing, tapping to cover width and incl 1 tap over end of tgt.

4. DEPTH TARGETS

- a. **With no width.** More than 50 yds deep but not more than 200 yds. Not more than 30 mins wide.
Method of fire: Halfway up R and L 2 taps.
- b. **With width.** Depth as in a. above. Must be more than 30 mins wide but not more than 100 yds.
Method of fire: Traversing.
- c. In both cases the depth of the tgt must be covered before using the combined sight rule.

5. MOVING TARGETS

Speed of veh in mph \times 5. Aim off by the figure produced in degrees and mins.

SAFETY

FLANKING

1. Basic safety angle = 3 degrees
 Method of fire = 30 mins pt tgt, 15 mins traversing tgt
 Wind allowance = ?

 Safety allowance = Total
2. Fire must stop when tps reach safety allowance.
3. Posn of FF must be known or they must be working to a timed programme.
4. Safety allowance must be measured by accurate means.
5. Guns must not be pointed, nor bullets fall within the basic safety angle.

FLANKING FIXED LINES

1. Beaten zones must be opened up to cover max ground.

Forward Slope	OPEN		OUT	
	Nil	50 yds	100 yds	150 yds
Flat Ground 1/115 (30')	—	—	1300-2000	600-1250
1/60 (1°)	—	—	600- 800 1350-2000	850-1300
1/30 (2°) 1/20 (3°)	—	600-1100	1150-2000	—
1/15 (4°) and steeper	600-1000	1050-2000	—	—

2. Laying a flanking fixed line
 - a. Set basic safety angle on deflection drums and lay on fwd edge of FF with lensatic sight.
 - b. Raise tangent backsight and look along the line of sight. Select a pt on the ground. Obtain range and open out BZs by giving guns different ranges.
 - c. Lay guns by direct means on to pt.
 - d. Zero the direction dial.
 - e. Use deflection drums of dial sight and measure switch to aiming post.
 - f. Record QE (dialsight range and angle of sight).

- g. Half-load and press thumbpiece.
- h. Consider wind problem before firing.
Tapping will NOT be emp.

OVERHEAD

LOWEST TANGENT ANGLE to engage tgt must be equal to or greater than the SAFETY ANGLE to FF plus or minus the GROUND ANGLE.

- a. LTA found in range tables from lowest range emp using CSR to engage tgt.
- b. SA found in range tables. It is the SA of the range of FF from the gun which must be found by R/F or map.
- c. GA is angle given by ground between FF and tgt. It must be measured by any accurate means. This angle is added to or subtracted from SA. If the LTA is equal or greater, then FF are safe.
- d. GA is added to SA only when line of sight gun \rightarrow FF is above line of sight gun \rightarrow tgt.

OVERHEAD FIXED LINES

- a. Obtain range to FF. Find equivalent range. Convert 25 yds at the equivalent range to an angle by VI graph.
- b. Set angle obtained on deflection drum as RIGHT for number 1 gun and LEFT for number 2 gun.
- c. Lay guns using lensatic sight on to centre of FF.
- d. Set equivalent range on tangent sight and lay on FF.
- e. Record switch and QE as for flanking fixed line.
- f. Taps. Bring angle obtained in b. above to nearest tap. If not exact, take to next highest and order R and L the no of taps.

NOTE: In all problems of safety, if wind is with attackers then allowance must be made.

INDIRECT FIRE

TYPES OF TARGET

1. Equal or less width than gun frontage

Switch is measured to centre, half gun frontage is expressed as an angle from VI graph, and this is either added to or subtracted from measured switch. R and L 1 tap.

2. Greater width than gun frontage

- a. Switch obtained as in 1. above.
- b. No of taps. Subtract the gun frontage angle from angular width of tgt, divide by 2, bring to nearest no of taps, add 1 tap for errors in direction, and order R and L the no of taps.
3. In all cases, if tgt is on RIGHT of ZL add the angle which half gun frontage subtends, if tgt is on LEFT then subtract.

CREST CLEARANCE

1. SSC will calculate MQA by ordering lowest gun to measure angle of sight to crest and adding CCA for range to crest.
2. Pl Comd calculates LQA. Find lowest range to engage tgt, look up in TA in range tables and add or subtract angle of sight to the tgt. This is the LQA.
3. If LQA is equal to or greater than MQA, then bullets will clear crest.

PARALLELING

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1. Gun angle method

- a. All dials and drums at zero and lensatic sight locked.
- b. SSC reads off front pointer. Nos 1 off rear pointer.
- c. When guns are parallel, all dials and drums at zero.
- d. Guns must not be tapped until lensatic sight has been unlocked and laid on aiming post.

2. Director method

- a. Place director in front of guns. Must be able to see director head through lensatic sight.
- b. Set director at 180 degrees, lay hair line on zero object.
- c. Use deflection drums and lay director on each dial sight.
- d. Order the angle so measured to be placed on rear pointer of dial sights.
- e. Nos 1 lay back on to director head. Guns are now parallel. Zero, unlatch, lay on aiming post.

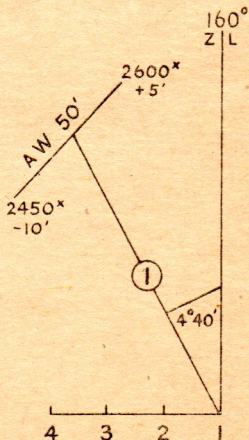
3. Distant aiming point method

- DAP must be clearly defined in order to lay lensatic sight on to it.
- Sec comd measures switch from DAP to zero object.
- Order this switch to both guns. Nos 1 place this angle on dial sights and lay on DAP using lensatic sight.
- DAP should be approx 7000 yds to the front
or 4000 yds half LEFT or RIGHT
or 1000 yds to LEFT or RIGHT
- The guns are now pointing at the zero object and are parallel.
- If possible, make the DAP the zero object.

NIGHT FIRING

DATA REQUIRED

- Each tgt.
 - Range-ends (corrected).
 - Angle of sight-ends.
 - Angular width.
 - Switch-ZL to centre.
- Safety-Each tgt.
 - Range to FF.
 - Angle of sight to FF.
 - Switch to FF.
- Crest Clearance.
 - Range to crest.
 - Angle of sight to crest.
- Mag bearing of ZL.
 - Task no.



NOTE: Remember to correct range for Mk VIII Z dial sight after all calculations completed.

GENERAL

1. When using Mk VIII Z dial sights and engaging targets over 2000 yds, employ ONE extra elevation below and above the target. DO NOT allow for this when calculating overhead safety and crest clearance.



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